

AQUIFER PROTECTION PERMIT NO. P- 105228

PLACE ID 5048, LTF 64823

SIGNIFICANT AMENDMENT

1.0 Authorization

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2 and 3, Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 and 2, A. A. C. Title 18, Chapter 11, Article 4 and amendments thereto, and the conditions set forth in this permit, the Arizona Department of Environmental Quality (ADEQ) hereby authorizes Global Water, Palo Verde Utilities Company, Inc. to operate the Palo Verde Campus 1 Water Reclamation Facility located at 22590 N. Powers Parkway, Maricopa, Arizona, (Pinal County), over groundwater of the Pinal Active Management Area, in Township 4S, Range 3E, Section 13, NW¼, NW¼, NW¼, of the Gila and Salt River Base Line and Meridian.

This permit becomes effective on the date of the Water Quality Division Director's signature and shall be valid for the life of the facility (operational, closure, and post-closure periods), unless suspended or revoked pursuant to A.A.C. R18-9-A213. The permittee shall construct, operate and maintain the permitted facilities:

1. Following all the conditions of this permit including the design and operational information documented or referenced below, and
2. Such that Aquifer Water Quality Standards (AWQS) are not violated at the applicable point(s) of compliance (POC) set forth below, or if an AWQS for a pollutant has been exceeded in an aquifer at the time of permit issuance, that no additional degradation of the aquifer relative to that pollutant, and as determined at the applicable POC, occurs as a result of the discharge from the facility.

1.1 Permittee Information

Facility Name: Global Water - Palo Verde Utilities Company, LLC. Campus 1 WRF
Facility Address: 22590 N. Powers Parkway
Maricopa, Arizona, 85138
County: Pinal County

Permittee: Global Water, Palo Verde Utilities Company, LLC.
Permittee Address: 21410 N. 19th Avenue, Suite 200
Phoenix, Arizona 85027

Facility Contact: Jon Corwin, General Manager
Emergency Phone No.: (602) 885-2791

Permitted Flow Rate: 12,000,000 gallons per day (gpd)

Latitude/Longitude: 33° 05' 12" N / 112° 00' 42" W

Legal Description: Township 4S, Range 3E, Section 13, NW¼, NW¼, NW¼, over groundwater of the Pinal Active Management Area in the Gila and Salt River Baseline and Meridian.

1.2 Authorizing Signature

Trevor Baggione, Director, Water Quality Division
Arizona Department of Environmental Quality

Signed this ____ day of _____, 2017

THIS AMENDED PERMIT SUPERCEDES ALL PREVIOUS PERMITS

2.0 SPECIFIC CONDITIONS [A.R.S. §§ 49-203(4), 49-241(A)]

2.1 Facility / Site Description [A.R.S. § 49-243(K)(8)]

The Global Water, Palo Verde Utilities Company, LLC is authorized to operate the 12.0 million gallon per day (mgd) Global Water - Palo Verde Utilities Company, LLC. Campus 1 Water Reclamation Facility (WRF). The existing WRF is rated at 3.0 mgd. The WRF will be expanded in four phases, Phase I (5 mgd), Phase II (6 mgd), Phase III (10 mgd) and Phase IV (12 mgd). All Phases will be equipped with Integrated Film Activated Sludge (IFAS) technology with nitrification- de-nitrification capability. The WRF is rated as producing Class A+ reclaimed water according to A.A.C. R18-11, Article 3, and may be discharged under AZPDES permit AZ0025071, to a recharge site owned by the same permittee APP No. 105922, or delivered for beneficial use under a valid reclaimed water permit as per A.A.C. R18-9, Article 7.

Existing WRF: The existing 3.0 mgd WRF, consists of an influent headworks with bar screen, a fine screen with grit removal, four sequencing batch reactors (SBR) for nitrification/denitrification, a post-equalization surge basin, cloth media disk filters, ultraviolet (UV) disinfection, an aerobic sludge digester, belt-press sludge dewatering, and an effluent pump station. The existing belt press unit will be used as backup for sludge dewatering. The sludge (including screenings, grit, and scum) will be stored and dried in the Biosolids Solar Drying Bed (BSDB) before being hauled off-site for management or disposal in accordance with state and federal regulations.

Phase I WRF: The 5 mgd, Phase I WRF will consist of the existing headworks with bar screen, two rotating drum screens, a backup fine screen with a grit chamber, an equalization tank, an anoxic reactor, two aeration reactor trains with IFAS and aeration zones (each with a 3 mgd capacity), one new and one existing aeration blowers, three clarifiers (two duty and one redundant), two cloth media disk filters, four UV disinfection units, an effluent pump station, and two lined effluent storage ponds. The sludge will be digested in the existing and the modified aerobic sludge digesters and dewatered in the two existing belt press machines. The sludge will be (including screenings, grit, and scum) stored and dried in the BSDB before being hauled off-site for management or disposal in accordance with state and federal regulations. The existing sequencing batch reactor (SBR) #1 will be converted to an aerobic sludge digester. SBR #2 will be used as spare tank. SBR #3 will be converted to an equalization tank and SBR #4 will be converted to an anoxic tank.

Phase II WRF: The 6mgd, Phase II WRF will consist of the existing headworks with bar screen, two rotating drum screens, a backup fine screen with a grit chamber, an equalization tank, two aeration reactor trains with IFAS and aeration zones (each with a 3 mgd capacity), additional IFAS media added for 6 mgd treatment, two aeration blowers, three clarifiers, two cloth media disk filters, four UV disinfection units, an effluent pump station, and two lined effluent storage ponds. The sludge will be digested in the existing and the modified aerobic sludge digesters and dewatered in the two existing belt press machines. The sludge (including screenings, grit, and scum) will be stored and dried in the BSDB before being hauled off-site for management or disposal in accordance with state and federal regulations.

Phase III WRF: The 10 mgd, Phase III WRF will consist of the existing headworks with bar screen, the two existing and one new rotating drum screen(s), a backup fine screen with a grit chamber, two equalization tanks and anoxic reactor trains, four aeration reactor trains with IFAS and aeration zones (each with a 3 mgd capacity), the existing and a new aeration blower(s), three existing and two new clarifiers (one redundant), two existing and one new cloth media disk filters, four existing and one new UV disinfection unit(s), an effluent pump station, and two lined effluent storage ponds. The modified SBR #1 aerobic digester will be converted back to an anoxic reactor. The sludge will be digested in the existing aerobic sludge digesters, thickened in a new thickener and dewatered in the two existing and one new belt press machines. The sludge (including screenings, grit, and scum) will be stored and dried in the BSDB before being hauled off-site for management or disposal in accordance with state and federal regulations.

Phase IV WRF: The 12 mgd Phase IV WRF will consist of the existing headworks with bar screen, three rotating drum screens, a backup fine screen with a grit chamber, two equalization tank and anoxic reactor trains, four aeration reactor trains with IFAS and aeration zones (each with a 3 mgd capacity), the existing and a new aeration blower(s), the five existing clarifiers, the three existing cloth media disk filters, the four existing and one new UV disinfection

unit(s), The existing effluent pump station will be upgraded with a new pump, and two lined effluent storage ponds. The sludge will be digested in the existing aerobic sludge digesters, thickened in a new thickener and dewatered in the three existing belt press machines. The sludge (including screenings, grit, and scum) will be stored and dried in the BSDB before being hauled off-site for management or disposal in accordance with state and federal regulations.

The effluent may be stored in the two lined storage ponds, discharged under a valid AZPDES permit (AZ0025071), discharged to the recharge site owned by the same permittee (under APP #105922), or used for beneficial purposes under a valid reclaimed water permit.

The BSDB was permitted under a Temporary Aquifer Protection Permit to dry the sludge from old treatment lagoons (previously under APP #103558, which was released on January 8, 2014). These lagoons were in temporary cessation and are repurposed to use as lined storage pond for effluent, and ADEQ approved the repurposing of the lagoons for effluent storage under this amendment. The BSDB will be permitted under this amendment to store and dry the sludge from the belt press. The BSDB is 200 feet by 390 feet in area with a total volume of 1.74 million gallons. The BSDB is lined with 2.5 inches of asphalt paving over four inches of aggregate base (AB) crushed rock. The supernatant from the Biosolids is captured in a drain catch basin below the drying bed surface. The supernatant will flow to an eight-foot-deep manhole to be pumped back to the headworks of the WRF.

ADEQ has reviewed and approved the following under this permit amendment:

- Increase of the flow for the WRF from 9 mgd to 12 mgd;
- The addition of new treatment trains, new treatment units and the modification of the existing sequencing batch reactor to anoxic basins;
- Modification of the Sequential Batch Reactor (SBR) Treatment Process to an Integrated Fixed-Film Activated Sludge (IFAS) treatment process;
- Modification of the location of the point of compliance for effluent sampling and POC Wells;
- Re-purpose of the existing lined lagoons to use as effluent storage basins;
- The addition of the Biosolids Solar Drying Bed to this permit.

All industrial hookups and other non-residential hookups to the treatment system shall be authorized according to the applicable federal, state or local regulations.

The site includes the following permitted discharging facilities:

Facility	Latitude (North)	Longitude (West)
WRF	33° 05' 12" N	112° 00' 42" W
Effluent Storage Pond 1	33° 05' 4.9" N	112° 00' 44.2" W
Effluent Storage Pond 2	33° 05' 4.9" N	112° 00' 41.9" W
Biosolids Solar Drying Bed (BSDB)	33° 05' 12.89" N	112° 00' 37.82" W
AZPDES outfall #1	33° 04' 20" N	112° 01' 48" W
AZPDES outfall #2	33° 03' 31" N	112° 01' 48.5" W
AZPDES outfall #3	33° 02' 49" N	112° 01' 51" W

Annual Registration Fee [A.R.S. § 49-242 and A.A.C. R18-14-104]

The annual registration fee for this permit is payable to ADEQ each year. The permitted flow for fee calculation is 12,000,000 gallons per day (gpd). If the facility is not constructed or is incapable of discharge, the permittee may be eligible for reduced fees under the rule. Send all correspondence requesting reduced fees to the Groundwater Section. Please reference the permit number, LTF number, and the reason for requesting reduced fees under the rule.

Financial Capability [A.R.S. § 49-243(N) and A.A.C. R18-9-A203]

The permittee has demonstrated financial capability under A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The estimated dollar amount for facility closure/post closure cost is \$426,600. The financial capability was demonstrated through A.A.C. R18-9-A203(C)(3).

2.2 Best Available Demonstrated Control Technology (BADCT)

[A.R.S. § 49-243(B) and A.A.C. R18-9-A202(A)(5)]

The WRF shall be designed, constructed, operated, and maintained to meet the treatment performance criteria for new facilities as specified in A.A.C. R18-9-B204. The facility shall meet the performance requirement for industrial pre-treatment as per A.A.C. R18-9-B204(B)(6)(b).

The treatment facility shall not exceed a maximum seepage rate of 550 gallons per day per acre for all containment structures within the treatment works.

2.2.1 Engineering Design

The WRF LTF 34055 expansion was designed as per the design report prepared and stamped, dated, and signed (sealed) by Richard Ryan, P.E., AquaTec, Inc., dated December 22, 2004, and subsequent sealed submittals that served as additions to the design report.

The WRF LTF 58325 expansion for the Post Equalization Basin (PEQB) mixer and filter by-pass pipeline improvement was designed as per the design report prepared and stamped, dated and signed (sealed) by Emery Layton, P.E., Layton Engineers, dated August 23, 2013 and subsequent sealed submittals that served as additions to the design report. Mr. Layton also designed the sludge dewatering unit which was approved for this permit amendment (application received by ADEQ on April 16, 2014); the design report is dated April 2014.

The BSDB LTF 61843 was designed as per the design report prepared by Emery Layton, P.E., Engineered with Layton, dated March 2015.

The upgraded treatment system for the WRF LTF 64823 was designed as per the design report prepared and stamped, dated, and signed (sealed) by Ram Narasimhan, P.E. (Professional Engineer) NCS Engineers dated March 8, 2017 and subsequent sealed submittals dated June 2017 that served as additions to the design report.

2.2.2 Site-specific Characteristics

Site specific characteristics were not used to determine BADCT.

2.2.3 Pre-operational Requirements

The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion within 60 days of completion of construction of Phase I as per Section 3.0 item 3.1.

2.2.4 Operational Requirements

1. The permittee shall maintain a copy of the up-to-date operations and maintenance manuals at the WRF site at all times; the manual shall be available upon request during inspections by ADEQ personnel.
2. The pollution control structures shall be inspected for the items listed in Section 4.2, Table III Facility Inspection (Operational Monitoring).
3. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and materials used shall be documented in the facility log book as per Section 2.7.2 and reported to ADEQ in the event of a violation or exceedance as per 2.7.3.

2.2.5 Reclaimed Water Classification

[A.A.C. R18-9-703(C)(2)(a), A.A.C. R18-11-303 through 307]

The treatment facility is rated as producing reclaimed water meeting the Class A+ Reclaimed Water Quality Standards (A.A.C. R18-11, Article 3) which may be used for any allowable Class A, B, or C use under a valid reclaimed water permit (A.A.C. R18-9, Article 7).

2.2.6 Certified Areawide Water Quality Management Plan Conformance
[A.A.C. R18-9-A201(B)(6)(a)]

Facility operations must conform to the approved Certified Areawide Water Quality Management Plan according to the 208 consistency determination in place at the time of permit issuance.

2.3 Discharge Limitations [A.R.S. §§ 49-201(14), 49-243 and A.A.C. R18-9-A205(B)]

1. The permittee is authorized to operate the treatment facility with a maximum average annual flow of 12 mgd. Tables listed for discharge monitoring are located in Section 4.2, and include Table IA-I for Phase I (this table will be discontinued after the construction of Phase II), Table IA-II for Phase II, Table IA-III for Phase III, and Table IA-IV for Phase IV. The permittee shall monitor under the table which is commensurate with the most current constructed phase. Upon construction of the next phase, the facility shall discontinue monitoring for the previous phase. Monitoring is not required for phases not yet constructed. Note: Table IA will be in use until Phase I of this permit is completed.
2. The permittee shall operate and maintain all permitted facilities to prevent unauthorized discharges pursuant to A.R.S. § 49-201(12) resulting from failure or bypassing of applicable BADCT.
3. Specific discharge limitations are listed in Section 4.2, Tables IA-II through Table IA-IV, and Table IB.

2.4 Point of Compliance (POC) [A.R.S. § 49-244]

The Points of Compliance (POC) are designated at the following locations:

POC #	POC Location	Latitude	Longitude
1	Designated POC, located northwest of the WRF (ADWR Well #55-907127) (Contingency well for discharging to the recharge site)	33° 05' 13" N	112° 00' 45.51" W
2	POC well #2, located approximately at AZPDES outfall #1	33° 04' 20" N	112° 01' 53" W
3	POC well #3, located approximately 1000 feet south of AZPDES outfall #3	33° 02' 39" N	112° 01' 49" W
4	Next to Santa Rosa Wash near the edge of the Gila River Indian Community boundary (12 mgd Conceptual POC Well)	33° 05' 12.77" N	112° 01' 50.17" W
5	Located approximately 110 feet downgradient (northwest) of the north side of the BSDB. (BSDB conceptual POC)	33° 05' 16.20" N	112° 00' 38.95" W

Routine groundwater monitoring is required at POC #2 and #3 as per Section 4.2, Table IIA. POC #1 (located downgradient of the WRF) is a contingency well; groundwater monitoring is not required until recharge commences under APP No. 105922 (the APP for the recharge site owned by the same permittee). This monitoring well is also utilized for groundwater monitoring under APP #105922 (POC #1) as per Section 4.2, Table IIB. POC #4 is a conceptual well; well installation and groundwater monitoring are not required until operating capacity and discharge rates of 12 mgd are achieved in Phase IV. POC #5 is a contingency well for the BSDB, groundwater monitoring is required only as a contingency.

Director may amend this permit to designate additional points of compliance if information on groundwater gradients or groundwater usage indicates the need.

2.5 Monitoring Requirements [A.R.S. § 49-243(B) and (K)(1), A.A.C. R18-9-A206(A)]

Unless otherwise specified in this permit, all monitoring required in this permit shall continue for the duration of the permit, regardless of the status of the facility. Monitoring shall commence the first full monitoring period following permit issuance. All sampling, preservation and holding times shall be in accordance with currently accepted standards of professional practice. Trip blanks, equipment blanks and duplicate samples shall also be obtained, and Chain-of-Custody procedures shall be followed, in accordance with currently accepted standards of professional practice. Copies of laboratory analyses and Chain-of-Custody forms shall be maintained at the permitted facility. Upon request, these documents shall be made immediately available for review by ADEQ personnel.

2.5.1 Pre-Operational Monitoring

Pre-Operational monitoring is not required under the terms of this permit.

2.5.2 Discharge Monitoring

The permittee shall monitor the wastewater according to Section 4.2, Tables IA-I through IA-IV. A representative sample of the effluent shall be collected at the point of discharge from the effluent pump station.

2.5.3 Reclaimed Water Monitoring

The permittee shall monitor the parameters listed under Table IB in addition to the routine discharge monitoring parameters listed in Table IA through IA-IV. Representative samples of the reclaimed water shall be collected at the point of discharge from the effluent pump station.

2.5.4 Facility / Operational Monitoring

Operational monitoring inspections shall be conducted according to Section 4.2, Table III.

If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and materials used shall be documented in the facility log book as per Section 2.7.2 and reported to ADEQ in case of a violation or exceedance as per 2.7.3.

2.5.5 Groundwater Monitoring and Sampling Protocols

The permittee shall monitor the groundwater quality according to Section 4.2, Tables IIA and IIB.

Static water level shall be measured and recorded prior to sampling. The wells shall be purged of at least three borehole volumes (as calculated using the static water level) or until field parameters (pH, temperature, and conductivity) are stable, whichever represents the greater volume. If evacuation results in the well going dry, the well shall be allowed to recover to 80 percent of the original borehole volume, or for 24 hours, whichever is shorter, prior to sampling. If after 24 hours there is not sufficient water for sampling, the well shall be recorded as "dry" for the monitoring event. An explanation for reduced pumping volumes, a record of the volume pumped, and modified sampling procedures shall be reported and submitted with the SMRF.

Static water levels shall be measured and recorded prior to sampling. As an alternative, the permittee may conduct the sampling using the low-flow purging method as described in the Arizona Water Resources Research Center, March 1995 *Field Manual for Water Quality Sampling*. The well must be purged until indicator parameters stabilize. Indicator parameters shall include dissolved oxygen, turbidity, pH, temperature, and conductivity.

2.5.5.1 POC Well Replacement

In the event the designated POC well should become unusable or inaccessible due to damage, insufficient water in the well for more than two (2) sampling events, or any other event, a replacement POC well shall be constructed and installed upon approval by ADEQ. If the replacement well is fifty feet or less from the original well, the alert levels (ALs) and aquifer quality limits (AQLs) established for the previously designated POC well shall apply to the replacement well.

2.5.6 Surface Water Monitoring and Sampling Protocols

Routine surface water monitoring is not required under the terms of this permit.

2.5.7 Analytical Methodology

All samples collected for compliance monitoring shall be analyzed using Arizona state-approved methods. If no state-approved method exists, then any appropriate EPA-approved method shall be used. Regardless of the method used, the detection limits must be sufficient to determine compliance with the regulatory limits of the parameters specified in this permit. If all methods have detection limits higher than the applicable limit, the permittee shall follow the contingency requirements of Section 2.6 and may propose "other actions" including amending the permit to set higher limits. Analyses shall be performed by a laboratory licensed by the Arizona

Department of Health Services, Office of Laboratory Licensure and Certification unless exempted under A.R.S. § 36-495.02. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods. A list of Arizona state-certified laboratories can be obtained at the address below:

Arizona Department of Health Services
Office of Laboratory Licensure and Certification
250 North 17th Avenue
Phoenix, AZ 85007
Phone: (602) 364-0720

2.5.8 Installation and Maintenance of Monitoring Equipment

Monitoring equipment required by this permit shall be installed and maintained so that representative samples required by the permit can be collected. If new groundwater wells are determined to be necessary, the construction details shall be submitted to the ADEQ Groundwater Section for approval prior to installation and the permit shall be amended to include any new points.

2.6 Contingency Plan Requirements

[A.R.S. § 49-243(K)(3), (K)(7) and A.A.C. R18-9-A204 and R18-9-A205]

2.6.1 General Contingency Plan Requirements

At least one copy of this permit and the approved contingency and emergency response plan submitted in the application shall be maintained at the location where day-to-day decisions regarding the operation of the facility are made. The permittee shall be aware of and follow the contingency and emergency plan.

Any AL that is exceeded or any violation of an AQL, discharge limit (DL), or other permit condition shall be reported to ADEQ following the reporting requirements in Section 2.7.3.

Some contingency actions involve verification sampling. Verification sampling shall consist of the first follow-up sample collected from a location that previously indicated a violation or the exceedance of an AL. Collection and analysis of the verification sample shall use the same protocols and test methods to analyze for the pollutant or pollutants that exceeded an AL or violated an AQL. The permittee is subject to enforcement action for the failure to comply with any contingency actions in this permit. Where verification sampling is specified in this permit, it is the option of the permittee to perform such sampling. If verification sampling is not conducted within the timeframe allotted, ADEQ and the permittee shall presume the initial sampling result to be confirmed as if verification sampling has been conducted. The permittee is responsible for compliance with contingency plans relating to the exceedance of an AL or violation of a DL, AQL or any other permit condition.

2.6.1.1 Contingency Plan for Odor Monitoring

The facility will be providing automated odor monitoring equipment on the boundary of all four sides of the plant to track the odor from the plant by monitoring H₂S levels. The equipment will be integrated into the facility's Supervisory Control and Data Acquisition (SCADA) system to allow real time H₂S odor monitoring. The facility has proposed to install OMI Industries Ecosorb Vapor Phase System at aeration basins and clarifiers to control odors from these units.

- Monitoring Frequency of Odor Monitoring Equipment: The odor monitoring equipment will monitor H₂S levels and collect data every 10 minutes via the SCADA system.
- Exceedance of a H₂S level: If the facility exceeds an H₂S level of 0.03 ppm for two (2) hours continuously, the facility shall start investigating the cause of the odors. The investigation will include checking the odor monitoring equipment's accuracy, any abnormal operation of the treatment process, wind speed and direction and/or any other factor that may have caused the H₂S odor.

- Activation of Vapor Phase System for odor control: Within 24 hours of the exceedance, upon investigation, if it is determined that the odors are due to the facility's treatment operation, the facility shall immediately start the OMI Industries Ecosorb Vapor Phase System for odor control. The facility shall continue the odor control system until the H₂S levels are below 0.03 ppm for two continuous hours.
- Reporting the Exceedance:
 1. The permittee shall submit written notification via email to the Groundwater Protection and Water Reuse Value Stream within five days of becoming aware of an H₂S AL exceedance.
 2. The permittee shall submit a written investigative report via email to the Groundwater Protection and Water Reuse within 30 days of becoming aware of the H₂S AL exceedance. The report shall document the following:
 - a. Identification and description of the H₂S alert level exceedance and the root cause of the exceedance;
 - b. The exact date(s) and time(s) of the H₂S AL exceedance, and the approximate date and time the H₂S levels were reduced below alert levels;
 - c. Any corrective action taken or planned to mitigate the effects of the H₂S exceedance, or to eliminate or prevent a recurrence of the exceedance;
 - d. Any monitoring activity or other information which indicates the H₂S levels may endanger public health;
 - e. Proposed changes to the H₂S monitoring which may include increased frequency of monitoring, the addition of H₂S odor loggers and or the replacement of current H₂S odor loggers, also document any changes to the permanent odor control equipment;
 - f. Describe any malfunction or failure of the H₂S odor control equipment devices, odor monitoring equipment, or other equipment including treatment processes that contributed to the H₂S AL exceedance.
- Permeant Odor Control: If the facility exceeds the H₂S levels three (3) times in a month and the investigation determines that the odor exceedances were due to the facility's treatment equipment and or operational error, then the facility shall propose the full odor control for aeration basins and clarifiers per Compliance Schedule Item #3.10.

2.6.2 Exceeding of Alert Levels

2.6.2.1 Exceeding of Performance Levels Set for Operational Conditions

1. If an operational performance level (PL) set in Section 4.2, Table III has been exceeded the permittee shall:
 - a. Notify the ADEQ Groundwater Section (by phone or email, see Section 2.7.5) within five days of becoming aware of the exceedance.
 - b. Submit a written report to the ADEQ Groundwater Section within 30 days after becoming aware of the exceedance. The report shall document all of the following:
 - (1) A description of the exceedance and its cause;
 - (2) The period of the exceedance, including exact date(s) and time(s), if known, and the anticipated time period during which the exceedance is expected to continue;

- (3) Any action taken or planned to mitigate the effects of the exceedance or spill, or to eliminate or prevent recurrence of the exceedance or spill;
- (4) Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS; and
- (5) Any malfunction or failure of pollution control devices or other equipment or process.

The facility is no longer on alert status once the operational indicator no longer indicates that a PL is being exceeded. The permittee shall, however, complete all tasks necessary to return the facility to its pre-alert operating condition.

2.6.2.2 Exceeding of Alert Levels (ALs) Set for Discharge Monitoring

1. If an AL set in Section 4.2, Table IA through IA-IV has been exceeded, the permittee shall immediately investigate to determine the cause. The investigation shall include the following:
 - a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the exceedance;
 - b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences; and
 - c. If the investigation procedures indicated in (a) and (b) above fail to reveal the cause of the exceedance, the permittee shall sample individual waste streams composing the wastewater for the parameter(s) in question, if necessary to identify the cause of the exceedance.
2. The permittee shall initiate actions identified in the approved contingency plan referenced in Section 5.0 and specific contingency measures identified in Section 2.6 to resolve any problems identified by the investigation which may have led to the AL exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6.
3. Within thirty days of an AL exceedance, the permittee shall submit the laboratory results to the ADEQ Groundwater Section along with a summary of the findings of the investigation, the cause of the exceedance, and actions taken to resolve the problem.
4. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.2.2.1 Exceeding Permit Flow Limit

1. If the Alert Level (AL) for average monthly flow in Section 4.2, Tables IA, IA-I, IA-II and IA-III (for Phases I, II and III respectively) has been exceeded, the permittee shall begin construction of the next phase, or submit a report to the ADEQ Groundwater Section detailing the reasons it is not necessary to begin the next phase of construction. Acceptance of the report instead of beginning the next phase of construction requires ADEQ approval.
2. If the AL for average monthly flow in Section 4.2, Table IA-III (Phase IV) has been exceeded, the permittee shall submit an application to the Groundwater Section for an APP amendment to expand the WRF, or submit a report detailing the reasons an expansion is not necessary. Acceptance of the report instead of an application for expansion requires ADEQ approval.

2.6.2.2.2 Alert Levels for Indicator Parameters

No ALs have been established for indicator parameters.

2.6.2.2.3 Alert Levels for Pollutants with Numeric Aquifer Water Quality Standards

1. In the case of an exceedance of an AL for a pollutant set in Section 4.2, Tables IIA and IIB, the permittee may conduct verification sampling within five days of becoming aware of the exceedance. The permittee may use results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
2. If verification sampling confirms the AL exceedance or if the permittee opts not to perform verification sampling, then the permittee shall increase the frequency of monitoring for the pollutants set in Section 4.2, Table II as follows:

Specified Monitoring Frequency (Section 4.2, Table IIA and IIB)	Monitoring Frequency for AL Exceedance
Daily	Daily
Weekly	Daily
Monthly	Weekly
Quarterly	Monthly
Semi-annually	Quarterly
Annually	Quarterly

In addition, the permittee shall immediately initiate an investigation of the cause of the AL exceedance, including inspection of all discharging units and all related pollution control devices, review of any operational and maintenance practices that might have resulted in an unexpected discharge, and hydrologic review of groundwater conditions including upgradient water quality.

3. The permittee shall initiate actions identified in the approved contingency plan referenced in Section 5.0 and specific contingency measures identified in Section 2.6 to resolve any problems identified by the investigation which may have led to an AL exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6. Alternatively, the permittee may submit a technical demonstration, subject to written approval by the Groundwater Section, that although an AL has been exceeded, pollutants are not reasonably expected to cause a violation of an AQL. The demonstration may propose a revised AL or monitoring frequency for approval in writing by the Groundwater Section.
4. Within 30 days after confirmation of an AL exceedance, the permittee shall submit the laboratory results to the Groundwater Section along with a summary of the findings of the investigation, the cause of the exceedance, and actions taken to resolve the problem
5. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.
6. The increased monitoring required as a result of an AL exceedance may be reduced to the monitoring frequency in Section 4.2, Tables IIA and or IIB (as applicable) if the results of four sequential sampling events demonstrate that no parameters exceed the AL
7. If the increased monitoring required as a result of an AL exceedance continues for more than six sequential sampling events, the permittee shall submit a second report documenting an investigation of the continued AL exceedance within 30 days of the receipt of laboratory results of the sixth sampling event.

2.6.2.2.4 Alert Levels to Protect Downgradient Users from Pollutants Without Numeric Aquifer Water Quality Standards

Not required at time of issuance.

2.6.2.2.5 Alert Level for Groundwater Level (Applicable if Permittee is Discharging to a Recharge Site APP# 105922 – POC Well #1)

1. If monitoring indicates the groundwater level is not within the allowable range established by the Alert Level (AL) in Section 4.2, Table IIB, the permittee shall submit a written report within 30 days after becoming aware of the exceedance. The report shall document the following:
 - a. the as-built configuration of the well, including the screened interval;
 - b. all groundwater level measurements available for the well;
 - c. a discussion and analysis of any trends or seasonal variations in the groundwater level measurements;

- d. information on groundwater recharge, withdrawal, or other hydrologic conditions in the vicinity of the well, and;
 - e. any other pertinent information obtained by the permittee.
- 2. If monitoring indicates the groundwater level is not within the allowable range established by the Alert Level (AL) in Section 4.2, Tables IIB for more than three (3) sequential sampling events, the permittee shall submit a second report which evaluates the cause(s) of the exceedance and recommends whether the well should be replaced pursuant to Section 2.5.5.1. The report shall discuss and demonstrate whether samples representative of the water quality of the relevant aquifer can be practicably obtained from the well.
 - 3. Upon review of the submitted report, the Department may amend the permit to require replacement of the well, require additional permit conditions, or other actions.

2.6.3 Discharge Limitations Violations

- 1. If a DL set in Section 4.2, Tables IA through IA-IV, or IB has been violated, the permittee shall immediately investigate to determine the cause. The investigation shall include the following:
 - a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the violation;
 - b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences;
 - c. If the investigation procedures indicated in (a) and (b) above fail to reveal the cause of the violation, the permittee shall sample individual waste streams composing the wastewater for the parameters in violation, as necessary to identify the cause of the violation.

The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. The permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in an ADEQ approved contingency plan, or separately approved according to Section 2.6.6.

- 2. The permittee shall comply with the flow monitoring requirements not to exceed per Section 4.2, Tables IA through IA-IV,
- 3. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions, or other actions.

2.6.4 Aquifer Quality Limit Violation

- 1. If an AQL set in Section 4.2 Tables IIA and IIB has been exceeded, the permittee may conduct verification sampling within 5 days of becoming aware of an AQL exceedance. The permittee may use the results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
- 2. If verification sampling confirms that the AQL is violated for any parameter or if the permittee opts not to perform verification sampling, then the permittee shall increase the frequency of monitoring to daily, weekly, monthly or quarterly depending on current sampling requirements. In addition, the permittee shall immediately initiate an evaluation for the cause of the violation, including inspection of all discharging units and all related pollution control devices, and review of any operational and maintenance practices that might have resulted in unexpected discharge.

The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. A verified exceedance of an AQL will be considered a violation unless the permittee demonstrates within 90 days or a longer time period if agreed to by ADEQ that the exceedance was not caused or contributed to by pollutants discharged from the facility. Unless the permittee has demonstrated that the exceedance was not caused or contributed to by pollutants discharged from the facility, the permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil,

surface water or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in an ADEQ approved contingency plan, or separately approved according to Section 2.6.6.

3. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, or other actions.

2.6.5 Emergency Response and Contingency Requirements for Unauthorized Discharges pursuant to A.R.S. §49-201(12) and pursuant to A.R.S. § 49-241 That Are Not Addressed Elsewhere in Section 2.6

2.6.5.1 Duty to Respond

The permittee shall act immediately to correct any condition resulting from a discharge pursuant to A.R.S. § 49-201(12) if that condition could pose an imminent and substantial endangerment to public health or the environment.

2.6.5.2 Discharge of Hazardous Substances or Toxic Pollutants

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of suspected hazardous substances (A.R.S. § 49-201(19)) or toxic pollutants (A.R.S. § 49-243(I)) on the facility site, the permittee shall promptly isolate the area and attempt to identify the discharged material. The permittee shall record information, including name, nature of exposure and follow-up medical treatment, if necessary, on persons who may have been exposed during the incident. The permittee shall notify the ADEQ Groundwater Section within 24 hours upon discovering the discharge of hazardous material which (a) has the potential to cause an AWQS or AQL to be exceeded, or (b) could pose an endangerment to public health or the environment.

2.6.5.3 Discharge of Non-hazardous Materials

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of non-hazardous materials from the facility, the permittee shall promptly attempt to cease the discharge and isolate the discharged material. Discharged material shall be removed and the site cleaned up as soon as possible.

The permittee shall notify the ADEQ Groundwater Section within 24 hours upon discovering the discharge of non-hazardous material which (a) has the potential to cause an AQL to be exceeded, or (b) could pose an endangerment to public health or the environment.

2.6.5.4 Reporting Requirements

The permittee shall submit a written report for any unauthorized discharges reported under Sections 2.6.5.2 and 2.6.5.3 to ADEQ Groundwater Section within 30 days of the discharge or as required by subsequent ADEQ action. The report shall summarize the event, including any human exposure, and facility response activities and include all information specified in Section 2.7.3. If a notice is issued by ADEQ subsequent to the discharge notification, any additional information requested in the notice shall also be submitted within the time frame specified in that notice. Upon review of the submitted report, ADEQ may require additional monitoring or corrective actions.

2.6.6 Corrective Actions

Specific contingency measures identified in Section 2.6 have already been approved by ADEQ and do not require written approval to implement.

With the exception of emergency response actions taken under Section 2.6.5, the permittee shall obtain written approval from the Groundwater Section prior to implementing a corrective action to accomplish any of the following goals in response to exceeding an AL or violation of an AQL, DL, or other permit condition:

1. Control of the source of an unauthorized discharge;
2. Soil cleanup;
3. Cleanup of affected surface waters;
4. Cleanup of affected parts of the aquifer; and/or
5. Mitigation to limit the impact of pollutants on existing uses of the aquifer.

Within 30 days of completion of any corrective action, the operator shall submit to the ADEQ Groundwater Section, a written report describing the causes, impacts, and actions taken to resolve the problem.

2.7 Reporting and Recordkeeping Requirements

[A.R.S. § 49-243(K)(2) and A.A.C. R18-9-A206(B) and R18-9-A207]

2.7.1 Self-monitoring Report Form

1. The permittee shall complete the Self-monitoring Reporting Forms (SMRFs) provided by ADEQ, and submit the completed report to the Groundwater Section or via the myDEQ Web Portal.
2. The permittee shall complete the SMRF to the extent that the information reported may be entered on the form. If no information is required during a reporting period, the permittee shall enter “not required” with an explanation on the SMRF and submit the report to ADEQ.
3. The tables contained in Section 4.2 list the monitoring parameters and the frequencies for reporting result on the SMRF:
 - Table IA, Existing WRF, Discharge Monitoring
 - Table IA-I through IA-IV (for Phases I through IV), Discharge Monitoring
 - Table IB, Reclaimed Water Monitoring
 - Table IIA, Groundwater Quality Monitoring
 - Table IIB, Contingency Groundwater Quality Monitoring

The parameters listed in the above-identified tables from Section 4.2 are the only parameters for which SMRF reporting is required.

- Table III, Facility Inspection (Operational Monitoring) – Log Book

The parameters listed in the above-identified table from Section 4.2 are the only parameters that shall be recorded in the inspection performance levels log book as per Section 2.7.2.

4. In addition to the SMRF, the information contained in A.A.C. R18-9-A206(B)(1) shall be included for exceeding an AL or violation of an AQL, DL, or any other permit condition being reported in the current reporting period.

2.7.2 Operation Inspection / Log Book Recordkeeping

A signed copy of this permit shall be maintained at all times at the location where day-to-day decisions regarding the operation of the facility are made. A log book (paper copies, forms, or electronic data) of the inspections and measurements required by this permit shall be maintained at the location where day-to-day decisions are made regarding the operation of the facility. The log book shall be retained for ten years from the date of each inspection, and upon request, the permit and the log book shall be made immediately available for review by ADEQ personnel. The information in the log book shall include, but not be limited to, the following information as applicable:

1. Name of inspector;
2. Date and time inspection was conducted;
3. Condition of applicable facility components;
4. Any damage or malfunction, and the date and time any repairs were performed;
5. Documentation of sampling date and time; and
6. Any other information required by this permit to be entered in the log book.

Monitoring records for each measurement shall comply with A.A.C. R18-9-A206(B)(2).

2.7.3 Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the Groundwater Section in writing within five days (except as provided in Section 2.6.5) of becoming aware of an AL exceedance, or violation of any permit condition, AQL, or DL.

2. The permittee shall submit a written report to the Groundwater Section within 30 days of becoming aware of the violation of any permit condition, AQL, or DL. The report shall document all of the following:
 - a. Identification and description of the permit condition for which there has been a violation and a description of the cause;
 - b. The period of violation including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue;
 - c. Any corrective action taken or planned to mitigate the effects of the violation, or to eliminate or prevent a recurrence of the violation;
 - d. Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS;
 - e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring; and
 - f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

2.7.4 Operational, Other or Miscellaneous Reporting

The permittee shall record the information as required in Table III in the facility log book as per Section 2.7.2, and report to ADEQ any violations or exceedances as per Section 2.7.3.

2.7.4.1 Evaluation Report for POC Well #3 (Compliance Schedule No. 3.8)

The permittee shall evaluate the construction of POC well #3 to determine if it meets the following purposes:

- The well is screened across the water table to adequately monitor potential impacts to the water table by the AZPDES discharge.
- The permittee shall submit an evaluation report per Section 3.0, Compliance Schedule Item 3.8 for POC well #3. The evaluation report shall consist of the following:
 - Screened interval of the POC well reported
 - As depth in feet below land surface (ft bls) and
 - As elevation in feet above mean sea level (ft amsl)
 - Recent depth to groundwater in the well
 - Hydrograph of POC well #3 showing depth to water trends
 - Evaluation on appropriateness of current well
 - If POC Well #3 is found deficient, contact ADEQ to discuss the appropriate remediation plan
 - If the Evaluation Report finds that POC Well #3 is adequately constructed and provides groundwater samples that are representative of the uppermost aquifer, and ADEQ agrees with those findings, no further action will be necessary.

2.7.5 Reporting Location

All Self-Monitoring Report Forms (SMRFs) shall be submitted to:

Arizona Department of Environmental Quality
 Groundwater Protection and Water Reuse Value Stream
 Mail Code 5415B-3
 1110 West Washington Street
 Phoenix, Arizona 85007
 Phone (602) 771-4571

Or

Through the myDEQ portal accessible on the ADEQ website at:

<http://www.azdeq.gov/welcome-mydeq>

Arizona Department of Environmental Quality
Mail Code: 5415B-3
1110 West Washington Street
Phoenix, Arizona 85007
Phone (602) 771-4999

Or via email to the current ADEQ APP Manager/Representative

2.7.6 Reporting Deadline

The following table lists the quarterly report due dates:

Monitoring conducted during quarter:	Quarterly Report due by:
January-March	April 30
April-June	July 30
July-September	October 30
October-December	January 30

The following table lists the semi-annual and annual report due dates:

Monitoring conducted:	Report due by:
Semi-annual: January-June	July 30
Semi-annual: July-December	January 30
Annual: January-December	January 30

2.7.7 Changes to Facility Information in Section 1.0

The Groundwater Section, shall be notified within ten days of any change of facility information including Facility Name, Permittee Name, Mailing or Street Address, Facility Contact Person, or Emergency Telephone Number.

2.8 Temporary Cessation [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A209(A)]

The permittee shall give written notice to the Groundwater Section before ceasing operation of the facility for a period of 60 days or greater. The permittee shall take the following measures upon temporary cessation:

At the time of notification, the permittee shall submit for ADEQ an approval plan for maintenance of discharge control systems and for monitoring during the period of temporary cessation. Immediately following ADEQ's approval, the permittee shall implement the approved plan. If necessary, ADEQ shall amend permit conditions to incorporate conditions to address temporary cessation. During the period of temporary cessation, the permittee shall provide written notice to the Groundwater Section of the operational status of the facility every three years. If the permittee intends to permanently cease operation of any facility, the permittee shall submit closure notification, as set forth in Section 2.9 below. Submittal of SMRFs is still required; report "Temporary Cessation" in the comment section.

2.9 Closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9-A209(B)]

For a facility addressed under this permit, the permittee shall give written notice of closure to the Groundwater Section of the intent to cease operation without resuming activity for which the facility was designed or operated. Submittal of SMRFs is still required; report "closure in process" in the comment section.

2.9.1 Closure Plan

Within 90 days following notification of closure, the permittee shall submit for approval to the Groundwater

Section, a closure plan which meets the requirements of A.R.S. § 49-252 and A.A.C. R18-9-A209(B)(3).

If the closure plan achieves clean-closure immediately, ADEQ shall issue a letter of approval to the permittee. If the closure plan contains a schedule for bringing the facility to a clean-closure configuration at a future date, ADEQ may incorporate any part of the schedule as an amendment to this permit.

2.9.2 Closure Completion

Upon completion of closure activities, the permittee shall give written notice to the Groundwater Section indicating that the approved closure plan has been implemented fully and providing supporting documentation to demonstrate that clean-closure has been achieved (soil sample results, verification sampling results, groundwater data, as applicable). If clean-closure has been achieved, ADEQ shall issue a letter of approval to the permittee at that time. If any of the following conditions apply, the permittee shall follow the terms of post-closure stated in this permit:

1. Clean-closure cannot be achieved at the time of closure notification or within one year thereafter under a diligent schedule of closure actions;
2. Further action is necessary to keep the facility in compliance with the AWQS at the applicable POC;
3. Continued action is required to verify that the closure design has eliminated discharge to the extent intended;
4. Remediation or mitigation measures are necessary to achieve compliance with Title 49, Ch. 2; and
5. Further action is necessary to meet property use restrictions.

2.10 Post-closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9-A209(C)]

Post-closure requirements shall be established based on a review of facility closure actions and will be subject to review and approval by the Groundwater Section.

In the event clean-closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Groundwater Section a post-closure plan that addresses post-closure maintenance and monitoring actions at the facility. The post-closure plan shall meet all requirements of A.R.S. §§ 49-201(30) and 49-252 and A.A.C. R18-9-A209(C). Upon approval of the post-closure plan, this permit shall be amended or a new permit shall be issued to incorporate all post-closure controls and monitoring activities of the post-closure plan.

2.10.2 Post-Closure Completion

Not required at the time of permit issuance

3.0 COMPLIANCE SCHEDULE [A.R.S. § 49-243(K)(5) and A.A.C. R18-9-A208]

For compliance schedule items, the permittee shall submit the required information, including a cover letter that lists the compliance schedule items, to the Groundwater Section. A copy of the cover letter shall also be submitted to the Groundwater Section.

No.	Description	Due by:	Permit Amendment Required?
3.1	The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that Phase I has been constructed according to the Department-approved design report or plans and specifications, as applicable for Phase I of the WRF.	Within 60 days of completion of construction of Phase I and prior to commencing discharge from Phase I of the WRF	No
3.2	The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that Phase II has been constructed according to the Department-approved design report or plans and specifications, as applicable for Phase II of the WRF.	Within 60 days of completion of construction of Phase II and prior to commencing discharge from Phase II of the WRF	No
3.3	The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that Phase III has been constructed according to the Department-approved design report or plans and specifications, as applicable for Phase III of the WRF.	Within 60 days of completion of construction of Phase III and prior to commencing discharge from Phase III of the WRF	No
3.4	The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that the new Phase III belt press has been constructed according to the Department-approved design report or plans and specifications.	Within 90 days of completion of construction of Phase III and prior to commencing discharge from Phase III of the WRF	No
3.5	The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that Phase IV has been constructed according to the Department-approved design report or plans and specifications, as applicable for Phase IV of the WRF.	Within 60 days of completion of construction of Phase IV and prior to commencing discharge from Phase IV of the WRF	No
3.6	The permittee shall submit a demonstration that the financial assurance mechanism listed in Section 2.1, Financial Capability, is being maintained as per A.R.S. 49-243.N.4 and A.A.C. R18-9-A203(H) for all estimated closure and post-closure costs including updated costs submitted under Section 3.0, No. 3.5 below. The demonstration shall include a statement that the closure and post-closure strategy has not changed, the discharging facilities listed in the permit have not been altered in a manner that would affect the closure and post-closure costs, and discharging facilities have not been added. The demonstration shall also include information in support of a certificate of deposit as required in A.A.C. R18-9-A203(C)(3).	Every 6 years from the date of permit signature, for the duration of the permit.	No
3.7	The permittee shall submit updated cost estimates for facility closure and post-closure, as per A.A.C. R18-9-A201(B)(5) and A.R.S. 49-243.N.2.a., amendment type will be "Other."	Every 6 years from the date of permit signature, for the duration of the permit.	Yes

3.8	The permittee shall evaluate POC #3 and submit an evaluation report per Section 2.7.4.1. If the report demonstrates contaminants are not influenced from the design of POC Well #3 or the facilities discharge at AZPDES Outfall #3, ADEQ will require the upstream CAFOs, Composting Facility and Energy Company(s) to install POC Wells to verify their facilities are not potentially contaminating the aquifer.	Within 180 days of permit issuance	No
3.9	The permittee shall submit a quarterly report that includes the results of the daily H ₂ S monitoring at the East, West, North and South odor monitoring equipment. The H ₂ S levels at the referenced monitoring equipment locations shall not exceed 0.03 parts per million (ppm) for two continuous hours. The report shall provide an explanation of any exceedance in H ₂ S levels above 0.03 ppm and the details related to the investigation of the odor sources.	Within 30 days from the end of each quarter.	No
3.10	The permittee shall submit a report to propose permanent odor control for the IFAS aeration basins and or clarifiers if the facility exceeds the H ₂ S 0.03 ppm limit three (3) times in a month. The report shall detail whether the aeration basins and or clarifiers caused the H ₂ S odors. The report shall include a detailed proposal to provide full odor control.	Within 30 days of the 3 rd exceedance of H ₂ S levels in a month	No

4.0 TABLES OF MONITORING REQUIREMENTS

4.1 PRE-OPERATIONAL MONITORING (or CONSTRUCTION REQUIREMENTS)

Not applicable

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

- Table IA, Existing Discharge Monitoring (3mgd)
- Table IA-I, Discharge Monitoring Phase I (5mgd)
- Table IA-II, Discharge Monitoring Phase II (6mgd)
- Table IA-III, Discharge Monitoring Phase III (10mgd)
- Table IA-IV, Discharge Monitoring Phase IV (12mgd)
- Table IB, Reclaimed Water Monitoring
- Table IIA, Groundwater Quality Monitoring
- Table IIB, Contingency Groundwater Quality Monitoring
- Table III, Facility Inspection (Operational Monitoring) – Log Book

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IA – EXISTING FACILITY (3mgd)
ROUTINE DISCHARGE MONITORING**

Sampling Point Number	Sampling Point Identification		Latitude		Longitude
1	Effluent Pump Station		33° 05' 06.47" N		112° 00' 44.9" W
Parameter	AL ¹	DL ²	Units	Sampling Frequency	Reporting Frequency
Total Flow ³ : Daily ⁴	Not Established ⁵	Not Established	mgd ⁶	Daily	Quarterly
Total Flow: Monthly Average ⁷	2.85	3.0	mgd	Monthly Calculation	Quarterly
Reuse Flow: Daily	Not Established	Not Established	mgd	Daily	Quarterly
Reuse Flow: Monthly Average	2.85	3.0	mgd	Monthly Calculation	Quarterly
AZPDES Flow: Daily	Not Established	Not Established	mgd	Daily	Quarterly
AZPDES Flow: Monthly Average	Not Established	Not Established	mgd	Monthly Calculation	Quarterly
Recharge Flow: Daily	Not Established	Not Established	mgd	Daily	Quarterly
Recharge Flow: Monthly Average	Not Established	Not Established	mgd	Monthly Calculation	Quarterly
<i>E. coli</i> : Single sample maximum ⁸	Not Established	15	MPN ⁹	Daily	Quarterly
<i>E. coli</i> : four (4) of seven (7) samples in a week ¹⁰	Not established	Non-detect ¹¹	MPN	Weekly Evaluation	Quarterly
Total Nitrogen ¹² : Five-sample rolling geometric mean ¹³	8.0	10.0	mg/l ¹⁴	Monthly Calculation	Quarterly

¹AL = Alert Level

²DL = Discharge Limit

³Total flow for all methods of disposal - Reuse, AZPDES, and Recharge

⁴Flow shall be measured using a continuous recording flow meter which totals the flow each day.

⁵Not Established means monitoring is required but no limits are specified.

⁶mgd = million gallons per day

⁷Monthly = Calculated value = Average of daily flow values in a month.

⁸For sampling frequency of *E. coli* only, the term “daily” means a sample that can practicably be obtained and delivered in sufficient time for proper analysis each day, provided that no less than four samples in each week are obtained and analyzed.

⁹MPN = Most Probable Number / 100 ml sample. For MPN, a value of <2.2 shall be considered to be non-detect.

¹⁰Week means a seven-day period starting on Sunday and ending on the following Saturday. The reporting form for this parameter consists of 13 weeks per quarter.

¹¹*E. coli* 4 of 7 samples requires entering “Compliance” or “Non-compliance” on the SMRF for each week of the reporting period. Evaluate the daily *E. coli* results for that week (Sunday through Saturday). If, of these seven days, four or more of the daily *E. coli* results are non-detect, report “Compliance” for that week’s entry on the SMRF. If three or fewer of the daily *E. coli* results are non-detect, report “Non-compliance” for that week’s entry on the SMRF.

¹²Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen

¹³The 5-sample rolling geometric mean is determined by multiplying the five (5) most recent monthly sample values together then taking the fifth root of the product. Example: $GM_5 = \sqrt[5]{(m_1)(m_2)(m_3)(m_4)(m_5)}$

¹⁴mg/l = milligrams per liter

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA – EXISTING FACILITY (3mgd)
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Metals (total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA – EXISTING FACILITY (3mgd)
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
Para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ¹⁵	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

¹⁵Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

TABLE IA-I, PHASE I (up to 5.0 mgd) ¹⁶
ROUTINE DISCHARGE MONITORING

Sampling Point Number	Sampling Point Identification		Latitude		Longitude
1	Effluent Pump Station		33° 05' 06.47" N		112° 00' 44.9" W
Parameter	AL ¹⁷	DL ¹⁸	Units	Sampling Frequency	Reporting Frequency
Total Flow ¹⁹ : Daily ²⁰	Not Established ²¹	Not Established	mgd ²²	Daily	Quarterly
Total Flow: Monthly Average ²³	4.75	5.0	mgd	Monthly Calculation	Quarterly
Reuse Flow: Daily	Not Established	Not Established	mgd	Daily	Quarterly
Reuse Flow: Monthly Average	4.75	5.0	mgd	Monthly Calculation	Quarterly
AZPDES Flow: Daily	Not Established	Not Established	mgd	Daily	Quarterly
AZPDES Flow: Monthly Average	Not Established	Not Established	mgd	Monthly Calculation	Quarterly
Recharge Flow: Daily (see footnote #5)	Not Established	Not Established	mgd	Daily	Quarterly
Recharge Flow: Monthly Average	Not Established	Not Established	mgd	Monthly Calculation	Quarterly
<i>E. coli</i> : Single sample maximum ²⁴	Not Established	15	MPN ²⁵	Daily	Quarterly
<i>E. coli</i> : four (4) of seven (7) samples in a week ²⁶	Not established	Non-detect ²⁷	MPN	Weekly Evaluation	Quarterly
Total Nitrogen ²⁸ : Five-sample rolling geometric mean ²⁹	8.0	10.0	mg/l ³⁰	Monthly Calculation	Quarterly

¹⁶ Upon transitioning from Phase I to Phase II, the permittee shall notify the Ground Section – Data Unit (see Section 2.7.5), discontinue monitoring under Table IA, and begin monitoring under Table IA-I.

¹⁷AL = Alert Level

¹⁸DL = Discharge Limit

¹⁹Total flow for all methods of disposal - Reuse, AZPDES, and Recharge

²⁰Flow shall be measured using a continuous recording flow meter which totals the flow each day.

²¹Not Established means monitoring is required but no limits are specified.

²²mgd = million gallons per day

²³Monthly = Calculated value = Average of daily flow values in a month.

²⁴For sampling frequency of *E. coli* only, the term “daily” means a sample that can practicably be obtained and delivered in sufficient time for proper analysis each day, provided that no less than four samples in each week are obtained and analyzed.

²⁵CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample. For CFU, a value of <1.0 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

²⁶Week means a seven-day period starting on Sunday and ending on the following Saturday. The reporting form for this parameter consists of 13 weeks per quarter.

²⁷If at least four (4) of seven (7) samples in a week are non-detect, report “yes” in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of seven (7) samples in a week have detections of *E. coli*, report “no” in the appropriate space on the SMRF (indicating that the standard has not been met).

²⁸Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen

²⁹The 5-sample rolling geometric mean is determined by multiplying the five (5) most recent monthly sample values together then taking the fifth root of the product. Example: $GM_5 = \sqrt[5]{(m_1)(m_2)(m_3)(m_4)(m_5)}$. For the first four samples enter “Not Required” on the SMRFS.

TABLE IA-I, PHASE I (up to 5.0 mgd)
ROUTINE DISCHARGE MONITORING (Continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Metals (total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

³⁰mg/l = milligrams per liter

TABLE IA-I, PHASE I (up to 5.0 mgd)
ROUTINE DISCHARGE MONITORING (Continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ³¹	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

³¹ Total Trihalomethanes (TTHMs) are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

**TABLE IA-II, PHASE II (up to 6.0 mgd) ³²
ROUTINE DISCHARGE MONITORING**

Sampling Point Number	Sampling Point Identification		Latitude		Longitude
1	Effluent Pump Station		33° 05' 06.47" N		112° 00' 44.9" W
Parameter	AL ³³	DL ³⁴	Units	Sampling Frequency	Reporting Frequency
Total Flow ³⁵ : Daily ³⁶	Not Established ³⁷	Not Established	mgd ³⁸	Everyday	Quarterly
Total Flow: Monthly Average ³⁹	5.70	6.0	mgd	Monthly Calculation	Quarterly
Reuse Flow: Daily	Not Established	Not Established	mgd	Everyday	Quarterly
Reuse Flow: Monthly Average	5.70	6.0	mgd	Monthly Calculation	Quarterly
AZPDES Flow: Daily	Not Established	Not Established	mgd	Everyday	Quarterly
AZPDES Flow: Monthly Average	Not Established	Not Established	mgd	Monthly Calculation	Quarterly
Recharge Flow: Daily	Not Established	Not Established	mgd	Everyday	Quarterly
Recharge Flow: Monthly Average	Not Established	Not Established	mgd	Monthly Calculation	Quarterly
<i>E. coli</i> : Single sample maximum ⁴⁰	Not Established	15	MPN ⁴¹	Daily	Quarterly
<i>E. coli</i> : four (4) of seven (7) samples in a week ⁴²	Not established	Non-detect ⁴³	MPN	Daily	Quarterly
Total Nitrogen ⁴⁴ : Five-sample rolling geometric mean ⁴⁵	8.0	10.0	mg/l ⁴⁶	Monthly Calculation	Quarterly

³² Upon transitioning from Phase II to Phase III, the permittee shall notify the Groundwater Section (see Section 2.7.5), discontinue monitoring under Table IA-I, and begin monitoring under Table IA-II.

³³ AL = Alert Level

³⁴ DL = Discharge Limit

³⁵ Total flow for all methods of disposal - Reuse, AZPDES, and Recharge

³⁶ Flow shall be measured using a continuous recording flow meter which totals the flow each day.

³⁷ Not Established means monitoring is required but no limits are specified.

³⁸ mgd = million gallons per day

³⁹ Monthly = Calculated value = Average of daily flow values in a month.

⁴⁰ For sampling frequency of *E. coli* only, the term “daily” means a sample that can practicably be obtained and delivered in sufficient time for proper analysis each day, provided that no less than four samples in each week are obtained and analyzed.

⁴¹ CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample. For CFU, a value of <1.0 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

⁴² Week means a seven-day period starting on Sunday and ending on the following Saturday. The reporting form for this parameter consists of 13 weeks per quarter.

⁴³ If at least four (4) of seven (7) samples in a week are non-detect, report “yes” in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of seven (7) samples in a week have detections of *E. coli*, report “no” in the appropriate space on the SMRF (indicating that the standard has not been met).

⁴⁴ Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen

⁴⁵ The 5-sample rolling geometric mean is determined by multiplying the five (5) most recent monthly sample values together then taking the fifth root of the product. Example: $GM_5 = \sqrt[5]{(m_1)(m_2)(m_3)(m_4)(m_5)}$

⁴⁶ mg/l = milligrams per liter

TABLE IA-II, PHASE II (up to 6.0 mgd)
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Metals (total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

TABLE IA-II, PHASE II (up to 6.0 mgd)
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ⁴⁷	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

⁴⁷ Total Trihalomethanes (TTHMs) are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

TABLE IA-III, PHASE III (up to 10.0 mgd) ⁴⁸
ROUTINE DISCHARGE MONITORING

Sampling Point Number	Sampling Point Identification		Latitude		Longitude
1	Effluent Pump Station		33° 05' 06.47" N		112° 00' 44.9" W
Parameter	AL ⁴⁹	DL ⁵⁰	Units	Sampling Frequency	Reporting Frequency
Total Flow ⁵¹ : Daily ⁵²	Not Established ⁵³	Not Established	mgd ⁵⁴	Everyday	Quarterly
Total Flow: Monthly Average ⁵⁵	9.5	10.0	mgd	Monthly Calculation	Quarterly
Reuse Flow: Daily	Not Established	Not Established	mgd	Everyday	Quarterly
Reuse Flow: Monthly Average	9.5	10.0	mgd	Monthly Calculation	Quarterly
AZPDES Flow: Daily	Not Established	Not Established	mgd	Everyday	Quarterly
AZPDES Flow: Monthly Average	Not Established	Not Established	mgd	Monthly Calculation	Quarterly
Recharge Flow: Daily	Not Established	Not Established	mgd	Everyday	Quarterly
Recharge Flow: Monthly Average	Not Established	Not Established	mgd	Monthly Calculation	Quarterly
<i>E. coli</i> : Single sample maximum ⁵⁶	Not Established	15	MPN ⁵⁷	Daily	Quarterly
<i>E. coli</i> : four (4) of seven (7) samples in a week ⁵⁸	Not established	Non-detect ⁵⁹	MPN	Daily	Quarterly
Total Nitrogen ⁶⁰ : Five-sample rolling geometric mean ⁶¹	8.0	10.0	mg/l ⁶²	Monthly Calculation	Quarterly

⁴⁸ Upon transitioning from Phase II to Phase III, the permittee shall notify the Groundwater Section (see Section 2.7.5), discontinue monitoring under Table IA-II, and begin monitoring under Table IA-III.

⁴⁹AL = Alert Level

⁵⁰DL = Discharge Limit

⁵¹Total flow for all methods of disposal - Reuse, AZPDES, and Recharge

⁵²Flow shall be measured using a continuous recording flow meter which totals the flow each day.

⁵³Not Established means monitoring is required but no limits are specified.

⁵⁴mgd = million gallons per day

⁵⁵Monthly = Calculated value = Average of daily flow values in a month.

⁵⁶For sampling frequency of *E. coli* only, the term “daily” means a sample that can practicably be obtained and delivered in sufficient time for proper analysis each day, provided that no less than four samples in each week are obtained and analyzed.

⁵⁷CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample. For CFU, a value of <1.0 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

⁵⁸Week means a seven-day period starting on Sunday and ending on the following Saturday. The reporting form for this parameter consists of 13 weeks per quarter.

⁵⁹If at least four (4) of seven (7) samples in a week are non-detect, report “yes” in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of seven (7) samples in a week have detections of *E. coli*, report “no” in the appropriate space on the SMRF (indicating that the standard has not been met).

⁶⁰Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen

⁶¹The 5-sample rolling geometric mean is determined by multiplying the five (5) most recent monthly sample values together then taking the fifth root of the product. Example: $GM_5 = \sqrt[5]{(m_1)(m_2)(m_3)(m_4)(m_5)}$

⁶²mg/l = milligrams per liter

TABLE IA-III, PHASE III (up to 10.0 mgd)
ROUTINE DISCHARGE MONITORING (Continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Metals (total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

TABLE IA-III, PHASE III (up to 10.0 mgd)
ROUTINE DISCHARGE MONITORING (Continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ⁶³	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

⁶³ Total Trihalomethanes (TTHMs) are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

TABLE IA- IV, PHASE IV (up to 12.0 mgd) ⁶⁴
ROUTINE DISCHARGE MONITORING

Sampling Point Number	Sampling Point Identification		Latitude		Longitude
1	Effluent Pump Station		33° 05' 06.47" N		112° 00' 44.9" W
Parameter	AL ⁶⁵	DL ⁶⁶	Units	Sampling Frequency	Reporting Frequency
Total Flow ⁶⁷ : Daily ⁶⁸	Not Established ⁶⁹	Not Established	mgd ⁷⁰	Everyday	Quarterly
Total Flow: Monthly Average ⁷¹	11.4	12.0	mgd	Monthly Calculation	Quarterly
Reuse Flow: Daily	Not Established	Not Established	mgd	Everyday	Quarterly
Reuse Flow: Monthly Average	11.4	12.0	mgd	Monthly Calculation	Quarterly
AZPDES Flow: Daily	Not Established	Not Established	mgd	Everyday	Quarterly
AZPDES Flow: Monthly Average	Not Established	Not Established	mgd	Monthly Calculation	Quarterly
Recharge Flow: Daily	Not Established	Not Established	mgd	Everyday	Quarterly
Recharge Flow: Monthly Average	Not Established	Not Established	mgd	Monthly Calculation	Quarterly
<i>E. coli</i> : Single sample maximum ⁷²	Not Established	15	MPN ⁷³	Daily	Quarterly
<i>E. coli</i> : four (4) of seven (7) samples in a week ⁷⁴	Not established	Non-detect ⁷⁵	MPN	Daily	Quarterly
Total Nitrogen ⁷⁶ : Five-sample rolling geometric mean ⁷⁷	8.0	10.0	mg/l ⁷⁸	Monthly Calculation	Quarterly

⁶⁴ Upon transitioning from Phase II to Phase III, the permittee shall notify the Groundwater Section (see Section 2.7.5), discontinue monitoring under Table IA-II, and begin monitoring under Table IA-III.

⁶⁵AL = Alert Level

⁶⁶DL = Discharge Limit

⁶⁷Total flow for all methods of disposal - Reuse, AZPDES, and Recharge

⁶⁸Flow shall be measured using a continuous recording flow meter which totals the flow each day.

⁶⁹Not Established means monitoring is required but no limits are specified.

⁷⁰mgd = million gallons per day

⁷¹Monthly = Calculated value = Average of daily flow values in a month.

⁷²For sampling frequency of *E. coli* only, the term “daily” means a sample that can practicably be obtained and delivered in sufficient time for proper analysis each day, provided that no less than four samples in each week are obtained and analyzed.

⁷³CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample. For CFU, a value of <1.0 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

⁷⁴Week means a seven-day period starting on Sunday and ending on the following Saturday. The reporting form for this parameter consists of 13 weeks per quarter.

⁷⁵If at least four (4) of seven (7) samples in a week are non-detect, report “yes” in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of seven (7) samples in a week have detections of *E. coli*, report “no” in the appropriate space on the SMRF (indicating that the standard has not been met).

⁷⁶Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen

⁷⁷The 5-sample rolling geometric mean is determined by multiplying the five (5) most recent monthly sample values together then taking the fifth root of the product. Example: $GM_5 = \sqrt[5]{(m_1)(m_2)(m_3)(m_4)(m_5)}$

⁷⁸mg/l = milligrams per liter

TABLE IA- IV, PHASE IV (up to 12.0 mgd)
ROUTINE DISCHARGE MONITORING (Continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Metals (total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

TABLE IA-IV PHASE IV (up to 12.0 mgd)
ROUTINE DISCHARGE MONITORING (Continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ⁷⁹	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

⁷⁹ Total Trihalomethanes (TTHMs) are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IB
RECLAIMED WATER MONITORING – A+

Sampling Point Number	Sampling Point Identification		Latitude	Longitude
1	Effluent Pump Station		33° 05' 06.47" N	112° 00' 44.9" W
Parameter	DL ⁸⁰	Units	Sampling Frequency	Reporting Frequency
<i>E.coli</i> : Single-sample maximum	15.0	MPN ⁸¹	Daily ⁸²	Quarterly
<i>E.coli</i> : Four (4) of last seven (7) samples	Non-detect ⁸³	MPN	Daily Evaluation	Quarterly
Total Nitrogen ⁸⁴ : Five-sample rolling geometric mean ⁸⁵	10.0	mg/l ⁸⁶	Monthly Calculation	Quarterly
Turbidity ⁸⁷ : Single reading	5.0	NTU ⁸⁸	Daily ⁸⁹	Quarterly
Turbidity: 24-hour average	2.0	NTU	Daily Calculation	Quarterly

⁸⁰DL = discharge limit

⁸¹MPN = Most Probable Number / 100 ml sample. For MPN, a value of <2.2 shall be considered to be non-detect.

⁸²For *E.coli*, “daily” sampling means every day in which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four samples in each week are obtained and analyzed.

⁸³Requires entering “Compliance” or “Non-compliance” on the SMRF for each day of the reporting period. Evaluate the daily *E.coli* result along with the six (6) previous sample results. If four (4) or more of those results are non-detect, report “Compliance” for that day’s entry on the SMRF. If four (4) or more of those results have detections of *E.coli*, report “Non-compliance” for that day’s entry.

⁸⁴Nitrate N, plus Nitrite N, plus Total Kjeldahl Nitrogen (TKN)

⁸⁵The 5-sample rolling geometric mean is determined by multiplying the five (5) most recent monthly sample values together then taking the fifth root of the product. Example: $GM_5 = \sqrt[5]{(m_1)(m_2)(m_3)(m_4)(m_5)}$

⁸⁶mg/l = milligrams per liter

⁸⁷Turbidimeter shall be placed at a point in the wastewater treatment process after filtration and immediately before disinfection and shall have a signal averaging time not exceeding 120 seconds. All exceedances must be explained and submitted to the Department with the corresponding quarterly SMRF; occasional spikes due to back-flushing or instrument malfunction shall not be considered an exceedance.

⁸⁸NTU = Nephelometric Turbidity Units

⁸⁹For the single turbidity reading, daily means the maximum reading during the 24-hour period.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IIA
ROUTINE GROUNDWATER MONITORING

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
2	POC Well #2			33° 04' 20" N	112° 01' 53" W
Parameter	AL ⁹⁰	AQL ⁹¹	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen ⁹² :	None	24	mg/l ⁹³	Monthly Calculation	Quarterly
Nitrate-Nitrite as N	None	24	mg/l	Monthly Calculation	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established ⁹⁴	Not Established	mg/l	Monthly	Quarterly
Total Coliform ⁹⁵	Absence	Absence	P/A ⁹⁶	Monthly	Quarterly
Sampling Point Number	Sampling Point Identification			Latitude	Longitude
3	POC Well #3			33° 02' 39" N	112° 01' 49" W
Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen:	None	57	mg/l	Monthly Calculation	Quarterly
Nitrate-Nitrite as N	None	24	mg/l	Monthly Calculation	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established ⁹⁷	Not Established	mg/l	Monthly	Quarterly
Total Coliform	Absence	Absence	P/A	Monthly	Quarterly

⁹⁰ AL = Alert Level

⁹¹ AQL = Aquifer Quality Limit

⁹² Total Nitrogen is equal to Nitrate as N plus Nitrite as N plus TKN.

⁹³ mg/l = milligrams per liter

⁹⁴ Not Established means monitoring is required, but no limits are specified.

⁹⁵ Total Coliform -- If Total Coliform has a positive result then an analysis for fecal coliform needs to be performed. If the fecal coliform analysis is also positive is also positive than it is considered and exceedance of the AQL for Total Coliform. If the results of the fecal coliform analysis is negative than results for Total Coliform is negative.

⁹⁶ P/A = Presence or absence of total coliforms in a 100-milliliter sample.

⁹⁷ Not Established means monitoring is required, but no limits are specified.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IIA
ROUTINE GROUNDWATER MONITORING (Continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Metals (total):					
Antimony	0.0048	0.006	mg/l	Monthly	Quarterly
Arsenic	0.04	0.05	mg/l	Monthly	Quarterly
Barium	1.60	2.00	mg/l	Monthly	Quarterly
Beryllium	0.0032	0.004	mg/l	Monthly	Quarterly
Cadmium	0.004	0.005	mg/l	Monthly	Quarterly
Chromium	0.08	0.1	mg/l	Monthly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Monthly	Quarterly
Fluoride	3.2	4.0	mg/l	Monthly	Quarterly
Lead	0.04	0.05	mg/l	Monthly	Quarterly
Mercury	0.0016	0.002	mg/l	Monthly	Quarterly
Nickel	0.08	0.1	mg/l	Monthly	Quarterly
Selenium	0.04	0.05	mg/l	Monthly	Quarterly
Thallium	0.0016	0.002	mg/l	Monthly	Quarterly

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IIA
ROUTINE GROUNDWATER MONITORING (Continued)

Parameter	AL	AQ	Units	Sampling Frequency	Reporting Frequency
Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ⁹⁸	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

⁹⁸ Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IIB
CONTINGENCY GROUNDWATER MONITORING⁹⁹

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
4	POC Well #1			33° 05' 13" N	112° 00' 42" W
Parameter	AL ¹⁰⁰	AQL ¹⁰¹	Units	Sampling Frequency	Reporting Frequency
Depth to water	Less than 25	Not Established	Feet bgs ¹⁰²	Monthly	Quarterly
Nitrate-Nitrite as N	17	23	mg/l ¹⁰³	Monthly Calculation	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established ¹⁰⁴	Not Established	mg/l	Monthly	Quarterly
Total Nitrogen ¹⁰⁵	Not Established	Not Established	mg/l	Monthly Calculation	Quarterly
Total Coliform ¹⁰⁶	Absence	Absence	P/A ¹⁰⁷	Monthly	Quarterly
Metals (total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

⁹⁹ Groundwater monitoring is required only after recharge activities commence as stated in Section 2.4 of the permit. Prior to the commencement of recharge activities, the Permittee shall contact the Water Quality Compliance Section requesting SMRFs for Table IIB.

¹⁰⁰ AL = Alert Level

¹⁰¹ AQL = Aquifer Quality Limit

¹⁰² bgs = below ground surface

¹⁰³ mg/l = milligrams per liter

¹⁰⁴ Not Established means monitoring is required, but no limits are specified.

¹⁰⁵ Total Nitrogen is equal to Nitrate as N plus Nitrite as N plus TKN. Use one sample to determine Total Nitrogen and the associated components (Nitrate as N, Nitrite as N, and TKN).

¹⁰⁶ Total Coliform -- If Total Coliform has a positive result then an analysis for fecal coliform needs to be performed. If the fecal coliform analysis is also positive it is considered and exceedance of the AQL for Total Coliform. If the results of the fecal coliform analysis is negative then results for Total Coliform is negative.

¹⁰⁷ P/A = Presence or absence of total coliforms in a 100-milliliter sample.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IIB
CONTINGENCY GROUNDWATER MONITORING (Continued)

Parameter	AL	AQ	Units	Sampling Frequency	Reporting Frequency
Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ¹⁰⁸	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

¹⁰⁸ Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE III
FACILITY INSPECTION (OPERATIONAL MONITORING) - LOG BOOK¹⁰⁹

Pollution Control Structure/Parameter	Performance Level	Inspection Frequency
Pump Integrity	Good working condition	Weekly
Treatment Plant Components	Good working condition	Weekly
Freeboard for Storage Ponds	3 feet	Monthly
Berm Integrity for Storage Ponds	No visible structural damage, breach, or erosion of embankments	Monthly
BSDB Freeboard	One (1) foot	Weekly
BSDB Asphalt Integrity	No visible cracks, punctures, or deteriorations of the asphalt	Monthly
BSDB Berm Integrity	No visible structural damage, deterioration, breach, or erosion of embankments, no seepage or runoff through or over the berm	Weekly
Odor monitoring equipment ¹¹⁰	Good working condition	Weekly

¹⁰⁹ The permittee shall record the inspection performance levels in a log book as per Section 2.7.2, and report any violations or exceedances as per Section 2.7.3. In the case of an exceedance, identify which structure exceeds the performance level in the log book.

¹¹⁰ If odor monitoring equipment malfunctions, then the permittee shall repair or replace the equipment within 96 hours.

5.0 REFERENCES AND PERTINENT INFORMATION

The terms and conditions set forth in this permit have been developed based upon the information contained in the following, which are on file with the Department:

1. APP Application, dated: March 8, 2017
2. Contingency Plan, dated: March 8, 2017
3. Final Hydrologist Memorandum, dated: April 18, 2017
4. Final Engineering Memorandum, dated: September 14, 2017
5. Public Notice, dated: Not applicable.
6. Public Hearing, dated: Not applicable.
7. Responsiveness Summary, dated: Not applicable.

6.0 NOTIFICATION PROVISIONS

6.1 Annual Registration Fees

The permittee is notified of the obligation to pay an Annual Registration Fee to ADEQ. The Annual Registration Fee is based upon the amount of daily influent or discharge of pollutants in gallons per day as established by A.R.S. § 49-242.

6.2 Duty to Comply [A.R.S. §§ 49-221 through 49-263]

The permittee is notified of the obligation to comply with all conditions of this permit and all applicable provisions of Title 49, Chapter 2, Articles 1, 2 and 3 of the Arizona Revised Statutes, Title 18, Chapter 9, Articles 1 through 4, and Title 18, Chapter 11, Article 4 of the Arizona Administrative Code. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to Title 49, Chapter 2, Article 4 or permit amendment, suspension, or revocation.

6.3 Duty to Provide Information [A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]

The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information which the Director may request to determine whether cause exists for amending or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

6.4 Compliance with Aquifer Water Quality Standards [A.R.S. §§ 49-243(B)(2) and 49-243(B)(3)]

The permittee shall not cause or contribute to a violation of an aquifer water quality standard at the applicable point of compliance for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an aquifer water quality standard for a pollutant, the permittee shall not discharge that pollutant so as to further degrade, at the applicable point of compliance for the facility, the water quality of any aquifer for that pollutant.

6.5 Technical and Financial Capability

[A.R.S. §§ 49-243(K)(8) and 49-243(N) and A.A.C. R18-9-A202(B) and R18-9-A203(E) and (F)]

The permittee shall have and maintain the technical and financial capability necessary to fully carry out the terms and conditions of this permit. Any bond, insurance policy, trust fund, or other financial assurance mechanism provided as a demonstration of financial capability in the permit application, pursuant to A.A.C. R18-9-A203(D), shall be in effect prior to any discharge authorized by this permit and shall remain in effect for the duration of the permit.

6.6 Reporting of Bankruptcy or Environmental Enforcement [A.A.C. R18-9-A207(C)]

The permittee shall notify the Director within five days after the occurrence of any one of the following:

1. The filing of bankruptcy by the permittee.
2. The entry of any order or judgment not issued by the Director against the permittee for the enforcement of any environmental protection statute or rule.

6.7 Monitoring and Records [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A206]

The permittee shall conduct any monitoring activity necessary to assure compliance with this permit, with the applicable water quality standards established pursuant to A.R.S. §§ 49-221 and 49-223 and §§ 49-241 through 49-252.

6.8 Inspection and Entry [A.R.S. §§ 41-1009, 49-203(B) and 49-243(K)(8)]

In accordance with A.R.S. §§ 41-1009 and 49-203(B), the permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit.

6.9 Duty to Modify [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A211]

The permittee shall apply for and receive a written amendment before deviating from any of the designs or operational practices specified by this permit.

6.10 Permit Action: Amendment, Transfer, Suspension & Revocation

[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

This permit may be amended, transferred, renewed, or revoked for cause, under the rules of the Department.

The permittee shall notify the Groundwater Section in writing within 15 days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.

7.0 ADDITIONAL PERMIT CONDITIONS

7.1 Other Information [A.R.S. § 49-243(K)(8)]

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit the correct facts or information.

7.2 Severability

[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition.

7.3 Permit Transfer

This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer shall be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).